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PROJEC

WBS

- END PROJECT 4741

**BEGIN PROJECT** -

E Walker St

VICINITY MAP

Oakland St

Note: Not to Scale

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

3		NO.	SHEET
N.C.		1	47
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPT	ION
47417		P.E.	•
47417		RIGHT-OI	F-WAY

# HENDERSON COUNTY

LOCATION: FROM THE INTERSECTION OF SR 1819 (MILLS STREET) AND OLD WORLD CIRCLE, FOR APPROX. 200 FEET ALONG OLD WORLD CIRCLE

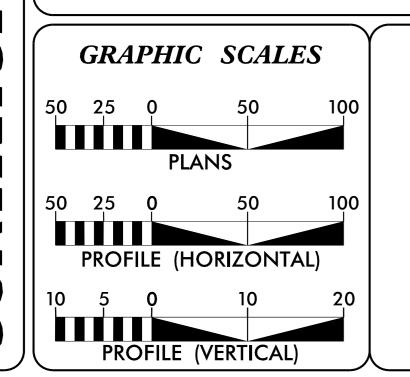
TYPE OF WORK: GRADING, PAVING, DRAINAGE

PROJECT PHASING: PHASE 1 CONSTRUCTION, -YI- OLD WORLD CIRCLE UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE

BEGIN PROJECT
-YI- Sta.10+16.18 -L-SR 1819 (MILLS ST) -L-SR 1819 (MILLS ST) PHASE I END PROJECT
-YI- Sta.12+20.00

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

DOCUMENT NOT CONSIDERED FINAL **UNLESS ALL SIGNATURES COMPLETED** 



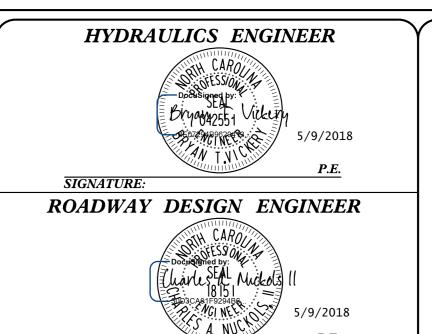
DESIGN DATA SR 1819 (MILLS ST) V = 30 MPH

PROJECT LENGTH

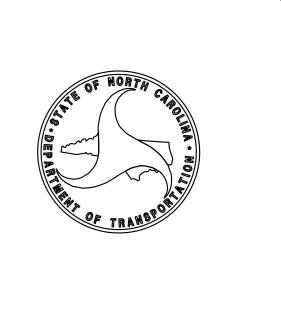
TOTAL LENGTH OF SR 1819 (MILLS ST) = 0.30 MILES TOTAL LENGTH OF ROADWAY CONSTRUCTION = 0.30 MILES

Kimley » Horn PLANS PREPARED FOR THE NCDOT BY: 2018 STANDARD SPECIFICATIONS CHARLES NUCKOLS, P.E. PROJECT ENGINEER RIGHT OF WAY DATE: 5/9/2018 **CALEB LOWMAN, E.I.** PROJECT DESIGN ENGINEER LETTING DATE: STEVE CANNON, P.E. **DIVISION 14** 

DISTRICT ENGINEER



**SIGNATURE**:



# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
011036406	/A
ROADWAY DESIG ENGINEER	N
CAROLLAND CAROLL	6/5/2018

#### INDEX OF SHEETS

SHEET NUMBER SHEET TITLE SHEET IΑ INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARDS CONVENTIONAL SYMBOLS SURVEY CONTROL SHEET IC-I TYPICAL SECTIONS. PAVEMENT SCHEDULE. 2A-I AND MISCELLANEOUS DETAILS GUARDRAIL INSTALLATION 2C-I 2D-I DRAINAGE DETAILS 3B-I SUMMARY OF GUARDRAIL SUMMARY OF DRAINAGE QUANTITIES 3D-I THRU 3D-2 4 THRU 5 PLAN SHEETS PROFILE SHEETS TMP-ITHRU TMP-2 TRANSPORTATION MANAGEMENT PLANS PMP-ITHRU PMP-4 PAVEMENT MARKING PLANS SIGN-I THRU SIGN-5 SIGNING PLANS EC-ITHRU EC-4 EROSION CONTROL PLANS CROSS SECTION INDEX X-0

CROSS SECTIONS

X-ITHRU X-9

#### GENERAL NOTES

#### 2018 SPECIFICATIONS

#### EFFECTIVE: 07-01-17

#### GRADE LINE:

#### GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

#### CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II. IN AREAS WITH PERMANENT UTILITY EASEMENTS, CLEARING SHALL EXTEND TO THE RIGHT-OF-WAY LIMITS.

#### SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 AND/OR 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

#### DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

#### SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.02.

#### SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THE PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

#### STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON THE PLANS.

#### GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

#### UTILITIES:

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON PLANS.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 840 OF THE 2018 STANDARD SPECIFICATIONS. PROVIDE A FRAME AND COVER WITH THE COVER BOLTED INTO THE FRAME.PROVIDE 25/8" STAINLESS STEEL BOLTS FOR EACH FRAME WITH COVER THAT MEET THE REQUIREMENTS OF SEC. 1072-5 OF THE 2018 STANDARD SPECIFICATIONS

#### LIST OF ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AND ANY OTHER APPLICABLE STANDARDS WITHIN THE "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	DESCRIPTION
200.02	METHOD OF CLEARING - METHOD II
225.02	GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
225.04	METHOD OF OBTAINING SUPERELEVATION - TWO LANE PAVEMENT
225.06	METHOD OF GRADING SIGHT DISTANCE AT INTERSECTIONS
300.01	METHOD OF PIPE INSTALLATION
560.02	METHOD OF SHOULDER CONSTRUCTION - HIGH SIDE OF SUPERELEVATED CURVE - METHOD II
654.01	PAVEMENT REPAIRS
840.00	CONCRETE BASE PAD FOR DRAINAGE STRUCTURES
840.01	BRICK CATCH BASIN - 12" THRU 54" PIPE
840.02	CONCRETE CATCH BASIN - 12" THRU 54" PIPE
840.03	FRAME, GRATES, AND HOOD - FOR USE ON STANDARD CATCH BASIN
840.14	CONCRETE DROP INLET - 12" THRU 30" PIPE
840.15	BRICK DROP INLET - 12" THRU 30" PIPE
840.16	DROP INLET FRAME AND GRATES - FOR USE WITH STD.DWG 840.14 AND 840.15
840.18	CONCRETE GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
840.24	FRAMES AND NARROW SLOT SAG GRATES
840.25	ANCHORAGE FOR FRAMES - BRICK, CONCRETE, OR PRECAST
840.27	BRICK GRATED DROP INLET TYPE 'B' - 12" THRU 36" PIPE
840.31	CONCRETE JUNCTION BOX - 12" THRU 66" PIPE
840.32	BRICK JUNCTION BOX - 12" THRU 66" PIPE
840.34	TRAFFIC BEARING JUNCTION BOX - FOR USE WITH PIPES 42" AND UNDER
840.45	PRECAST DRAINAGE STRUCTURE
840.54	MANHOLE FRAME AND COVER
840.66	DRAINAGE STRUCTURE STEPS
840.71	CONCRETE AND BRICK PIPE PLUG
846.01	CONCRETE CURB, GUTTER AND CURB AND GUTTER
848.02	DRIVEWAY TURNOUT - RADIUS TYPE
848.04	STREET TURNOUT - RADIUS TYPE
848.05	CURB RAMP - PROPOSED CURB & GUTTER
862.01	GUARDRAIL PLACEMENT
862.02	GUARDRAIL INSTALLATION (USE DETAIL 2C-IIN LIEU OF SHEET 6 OF 8)
876.01	RIP RAP IN CHANNELS
876.02	GUIDE FOR RIP RAP AT PIPE OUTLETS
070 04	DRAINAGE DITOUES WITH OLASS (B) DID DAD

DRAINAGE DITCHES WITH CLASS 'B' RIP RAP

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**BOUNDARIES AND PROPERTY:** 

## STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

Water Valve —

# CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale \*S.U.E. = Subsurface Utility Engineering

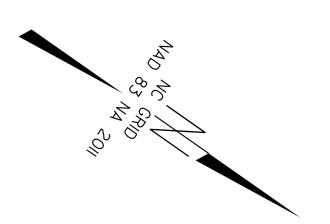
PROJECT REFERENCE NO.	SHEET NO.
011036406	IB
ROADWAY DESIG ENGINEER	N
CARO Docusigned EyA Livarus glis huko Sobscapi F9294B6.	S
	5/10/2018

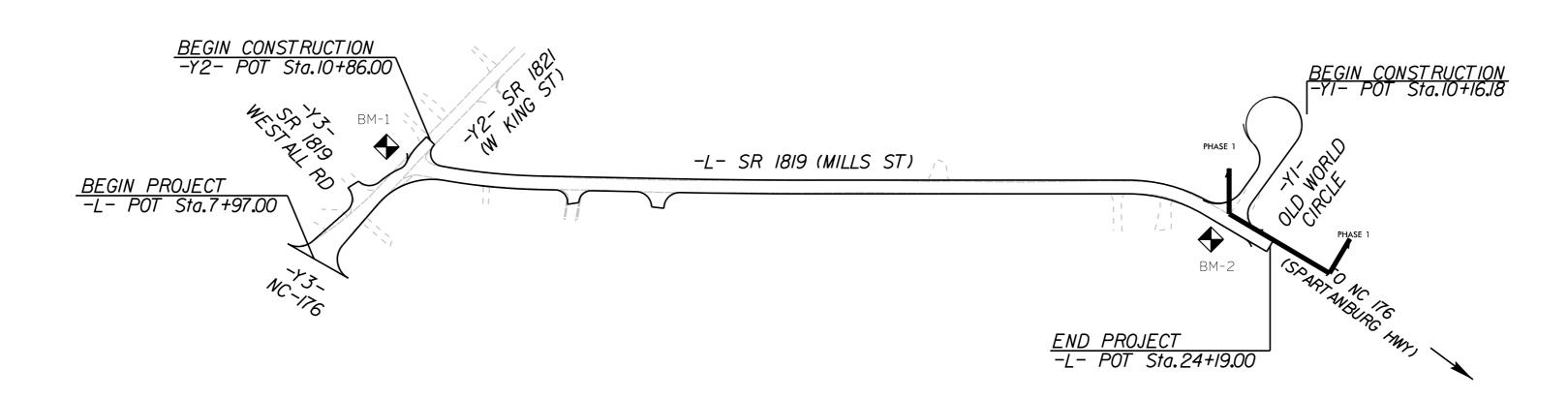
Sidle Lille			
County Line		DAII DOADS.	
Township Line —		RAILROADS:	++++++
City Line		Standard Gauge	CSX TRANSPORTATION
Reservation Line —	·	RR Signal Milepost	MILEPOST 35
Property Line —		Switch —	SWITCH
Existing Iron Pin		RR Abandoned	
Property Corner	×	RR Dismantled	
Property Monument		RIGHT OF WAY:	•
Parcel/Sequence Number		Baseline Control Point ————	<b>•</b>
Existing Fence Line	xxx_	Existing Right of Way Marker	$\triangle$
Proposed Woven Wire Fence	<del></del>	Existing Right of Way Line	
Proposed Chain Link Fence	<del></del>	Proposed Right of Way Line ————	
Proposed Barbed Wire Fence		Proposed Right of Way Line with Iron Pin and Cap Marker	
Existing Wetland Boundary		Proposed Right of Way Line with	
Proposed Wetland Boundary	wlb	Concrete or Granite R/W Marker	
Existing Endangered Animal Boundary —		Proposed Control of Access Line with Concrete C/A Marker	
Existing Endangered Plant Boundary ——		Existing Control of Access ————	<b>√</b> ₹\
Existing Historic Property Boundary			707
Known Contamination Area: Soil		Proposed Control of Access ————	•
Potential Contamination Area: Soil		Existing Easement Line ————————————————————————————————————	
Known Contamination Area: Water ——	<u> </u>	Proposed Temporary Construction Easement -	
Potential Contamination Area: Water ——	————	Proposed Temporary Drainage Easement —	
Contaminated Site: Known or Potential —		Proposed Permanent Drainage Easement —	
BUILDINGS AND OTHER CUI		Proposed Permanent Drainage / Utility Easement	
Gas Pump Vent or U/G Tank Cap		Proposed Permanent Utility Easement ———	
Sign —	_	Proposed Temporary Utility Easement ———	
Well ————		Proposed Aerial Utility Easement ————	——AUE——
Small Mine —		Proposed Permanent Easement with	
Foundation —		Iron Pin and Cap Marker	<b>V</b>
Area Outline ————		ROADS AND RELATED FEATURE	<b>3</b> :
Cemetery —		Existing Edge of Pavement ————	
Building —		Existing Curb	
School ———————————————————————————————————		Proposed Slope Stakes Cut ————	
Church ————————————————————————————————————	<u> </u>	Proposed Slope Stakes Fill ————	
Dam —		Proposed Curb Ramp	
HYDROLOGY:		Existing Metal Guardrail	
Stream or Body of Water —————		Proposed Guardrail —————	
Hydro, Pool or Reservoir —		Existing Cable Guiderail	
Jurisdictional Stream		Proposed Cable Guiderail	
Buffer Zone 1 ———————————————————————————————————		Equality Symbol	•
Buffer Zone 2 ———————————————————————————————————		Pavement Removal	
Flow Arrow —		VEGETATION:	
Disappearing Stream —		Single Tree	슌
Spring —		Single Shrub	₿
Wetland		Hedge ————	
Proposed Lateral, Tail, Head Ditch ———		Woods Line	
False Sump	FLOW	Orchard —	හි හි හි හි
	$\checkmark$	Vineyard ————	Vineyard

EVICTING CTDISCTUDES.			D3CA01F9294B6
EXISTING STRUCTURES:  MAJOR:			5/10/201
Bridge, Tunnel or Box Culvert ——— [	CONC	Water Hydrant	— ♣
Bridge Wing Wall, Head Wall and End Wall -		U/G Water Line LOS B (S.U.E*)	
AINOR:		U/G Water Line LOS C (S.U.E*)	
	CONC HW	U/G Water Line LOS D (S.U.E*)	
Pipe Culvert		Above Ground Water Line	
Footbridge		Above Ground Water Line	
Drainage Box: Catch Basin, DI or JB ———	СВ	TV: TV Pedestal	_ <del></del>
Paved Ditch Gutter ———————————————————————————————————		TV Tedesiai TV Tower	
Storm Sewer Manhole ————	<b>S</b>	U/G TV Cable Hand Hole	
Storm Sewer ———————————————————————————————————	s	U/G TV Cable Hand Hole  U/G TV Cable LOS B (S.U.E.*)	
		U/G TV Cable LOS C (S.U.E.*)	
UTILITIES:		U/G TV Cable LOS D (S.U.E.*)	
OWER:	1	U/G Fiber Optic Cable LOS B (S.U.E.*)	
Existing Power Pole	• 1	U/G Fiber Optic Cable LOS B (S.U.E.*)	
Proposed Power Pole	<b>Q</b>	U/G Fiber Optic Cable LOS C (S.U.E.*) ——  U/G Fiber Optic Cable LOS D (S.U.E.*) ——	
Existing Joint Use Pole	-⊕-		
Proposed Joint Use Pole	- <b>6</b> -	GAS:	
Power Manhole —————	(P)	Gas Valve	
Power Line Tower ————		Gas Meter ———————————————————————————————————	·
Power Transformer ———————————————————————————————————	$\square$	U/G Gas Line LOS B (S.U.E.*)	
J/G Power Cable Hand Hole		U/G Gas Line LOS C (S.U.E.*)	
H–Frame Pole —————	••	U/G Gas Line LOS D (S.U.E.*)	
J/G Power Line LOS B (S.U.E.*)		Above Ground Gas Line	A/G Gas
U/G Power Line LOS C (S.U.E.*)		SANITARY SEWER:	
U/G Power Line LOS D (S.U.E.*)	P	Sanitary Sewer Manhole	— <b>⊕</b>
ELEPHONE:		Sanitary Sewer Cleanout —	
Existing Telephone Pole ————		U/G Sanitary Sewer Line ——————	ss
Proposed Telephone Pole ————	- <b>O</b> -	Above Ground Sanitary Sewer —	A/G Sanitary Sewe
Telephone Manhole	① ①	SS Forced Main Line LOS B (S.U.E.*)	
Telephone Pedestal —————		SS Forced Main Line LOS C (S.U.E.*)	
Telephone Cell Tower ————————————————————————————————————	<u>.</u>	SS Forced Main Line LOS D (S.U.E.*)	
J/G Telephone Cable Hand Hole ———	<del>√■</del> √	MISCELLANEOUS:	
		Utility Pole —	_ •
U/G Telephone Cable LOS B (S.U.E.*) ————————————————————————————————————		Utility Pole with Base —	
J/G Telephone Cable LOS C (S.U.E.*) ————————————————————————————————————		Utility Located Object —	
		Utility Traffic Signal Box —	
J/G Telephone Conduit LOS B (S.U.E.*) —		Utility Unknown U/G Line LOS B (S.U.E.*)	
U/G Telephone Conduit LOS D (S.U.E.*)		U/G Tank; Water, Gas, Oil	
U/G Fiber Optics Cable LOS B (S.U.E.*)		Underground Storage Tank, Approx. Loc. —	
U/G Fiber Optics Cable LOS B (S.U.E.*) —		A/G Tank; Water, Gas, Oil ———————————————————————————————————	
U/G Fiber Optics Cable LOS C (S.U.E.*)			
U/G Fiber Optics Cable LOS D (S.U.E.*)——	1 FU	U/G Test Hole LOS A (S.U.E.*)	•
/ATER:	<b>(</b> )		_
Water Manhole	(W)	Abandoned According to Utility Records —  End of Information ————————————————————————————————————	
Water Meter —————	0	LIIG OI IIIIOIIIIGIII	– E.O.I.

SURVEY CONTROL SHEET WBS-47417

PROJECT REFERENCE NO.	SHEET NO.
011036406	<i>IC−I</i>
LOCATION AND SUI	RVEYS





#### BASELINE DATA

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	BL - 1	575488.3210	978435.1080	320.89	9+92.27	21.86 LT
2	BL - 2	575785.6910	978283.3240	317.78	13+16.62	12.61 RT
3	BL - 3	576117.4150	978055.4670	326.64	17 + 18.82	11.58 RT
4	BL - 4	576580.3170	977733.1610	302.88	22+80.69	13.30 LT

#### DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY BY NCDOT FOR MONUMENT "G102" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 575999.6720(f+), EASTING: 978569.9000(f+). ELEVATION: 2187.79(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999773145 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "G102" TO -L- STATION 13+35.37 IS N 56°13′05″E 369.95′ ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

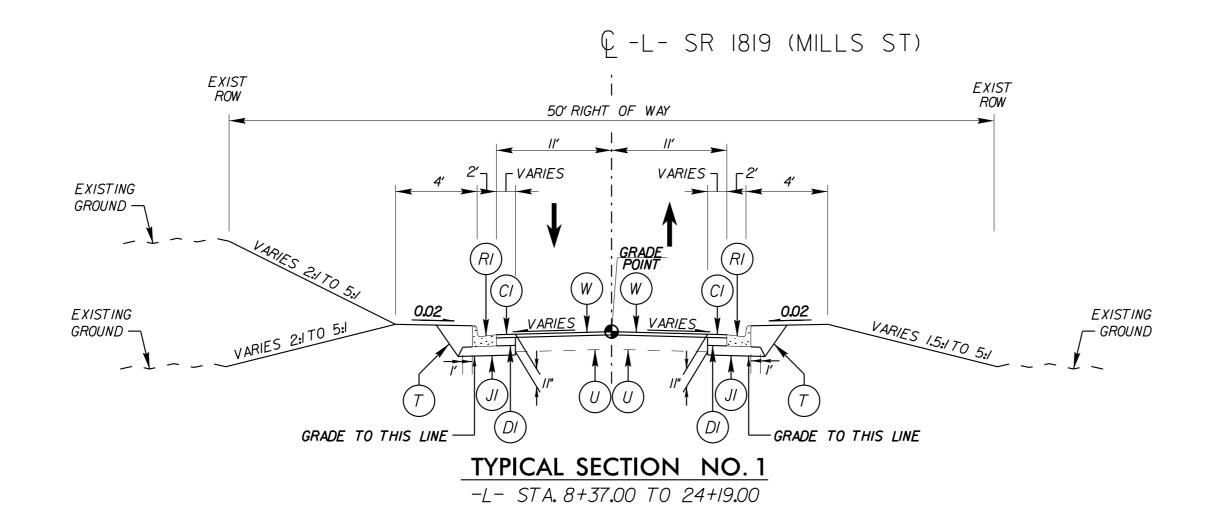
> GEOID G12ANC NOTE: DRAWING NOT TO SCALE

BENCHMARK DATA

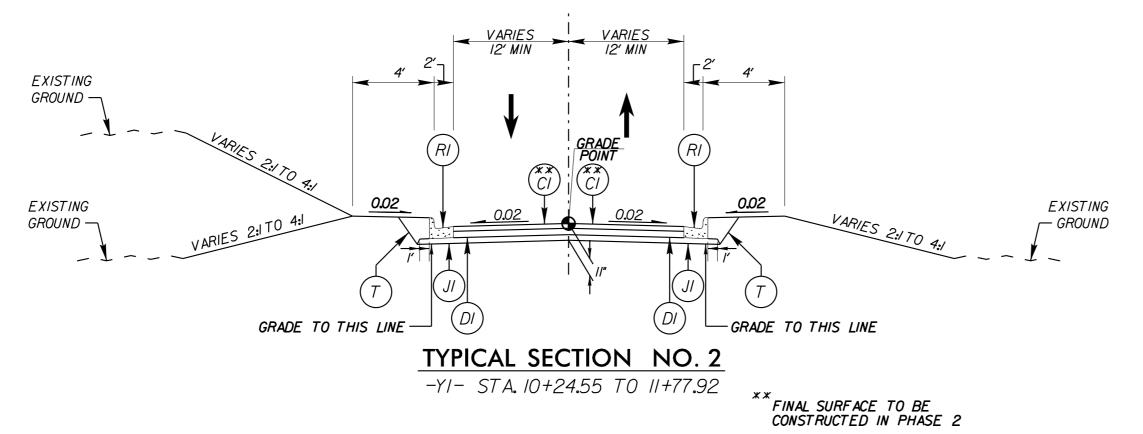
* * * * * * * * * * * * * * * * * * * *
BM1 ELEVATION = 2204.89'
N 575461 E 978422
BL STATION 5+00.00
N 25° 32′ 55" E DISTANCE 30.48′
8" SPIKE SET IN THE ROOT OF A 24" WHITE
PINE TREE STUMP
****
*****
BM2 ELEVATION = 2175.31'
N 576636 E 977782
BL STATION 18+00.37
S 41° 02′ 23" E DISTANCE 73.93′
8" SPIKE SET IN THE ROOT OF A 36" WALNUT
TREE
* * * * * * * * * * * * * * * * * * * *

#### NOTES:

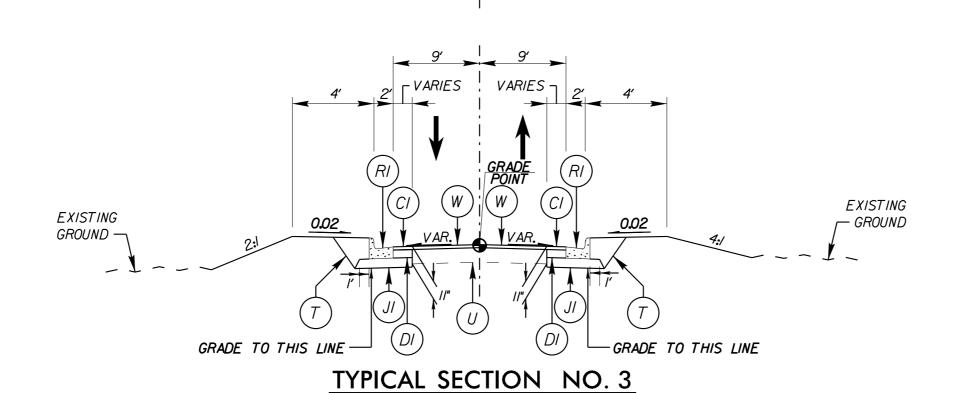
SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.



€-YI- OLD WORLD CIRCLE (PHASE I)



€-Y2- SR 1821(W KING ST)



-Y2- STA. 10+86.00 TO 11+36.72

421 FAYETTEVILLE ST, SUITE 600 RALEIGH, N.C. 27601

011036406	2A-1
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CAROUSIGNET DE LA NULOIS ET SOD3CAO1F9294B6	CAROUS GESSION DOCUMENT OF ESSION DOCUMENT OF ESSIO

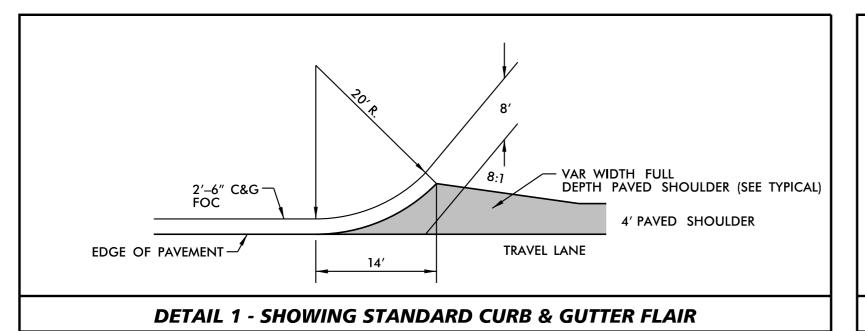
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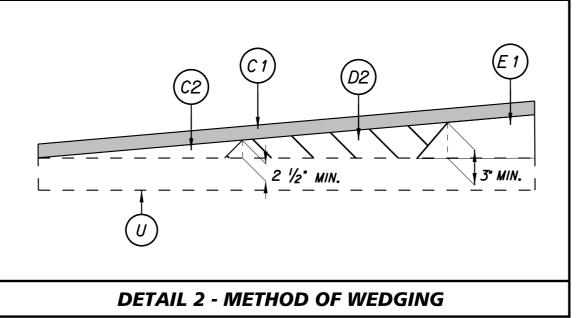
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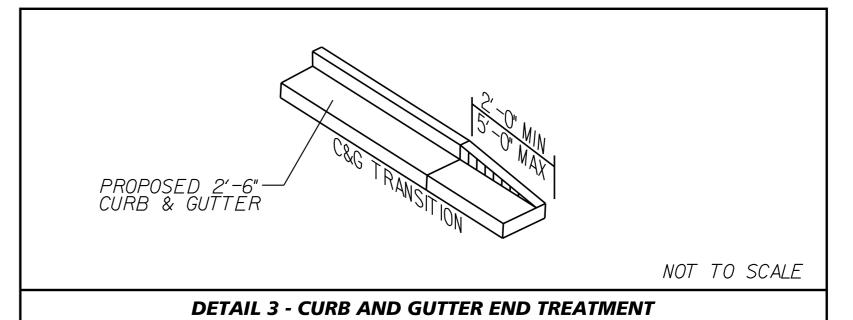
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE
PROPOSED APPROX 2" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH.TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
PROPOSED APPROX. 5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 119.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. TO BE PLACED IN EACH OF TWO LAYERS.
PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 119.0C, AT AN AVERAGE RATE OF 114 LBS.PER SO.YD.PER 1" DEPTH.TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.OC, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
PROPOSED 6" AGGREGATE BASE COURSE
PROPOSED VAR. DEPTH AGGREGATE BASE COURSE
PROPOSED 2'-6" CONCRETE CURB & GUTTER
PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
EARTH MATERIAL
EXISTING PAVEMENT
VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL 2, SHEET 2A-I)

I.RETAIN EXIST 2'-6" C&G FROM -L- STA.7+97.00 TO 8+37.00 2. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE INDICATED 3.REFER TO PLAN SHEETS FOR VARIABLE WIDTHS



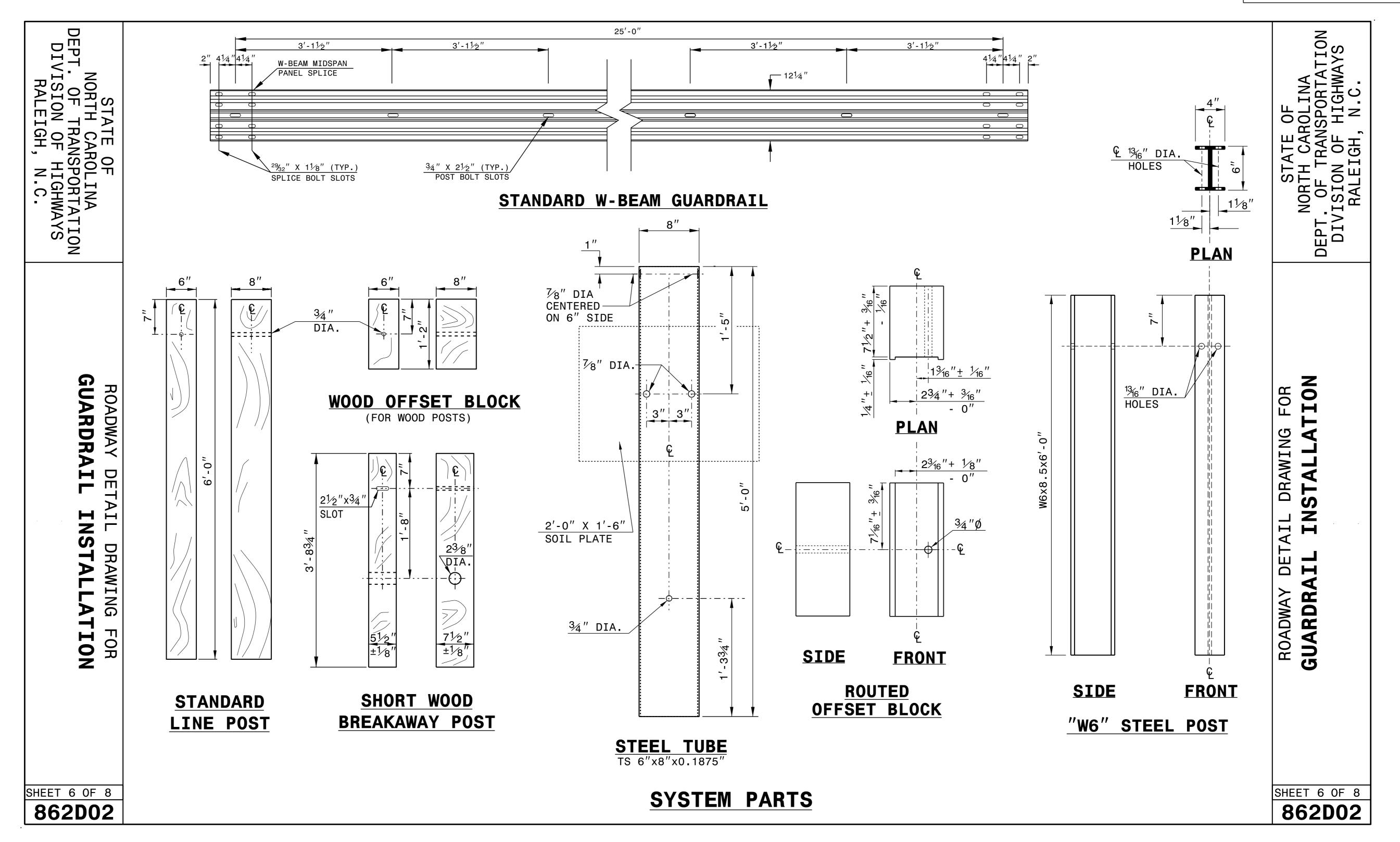




 PROJECT REFERENCE NO.
 SHEET NO.

 011036406
 2C-1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





CONTRACTS STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119

### SEE TITLE BLOCK

ORIGINAL BY: J.HOWERTON	DATE: <u>3-7-2018</u>
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

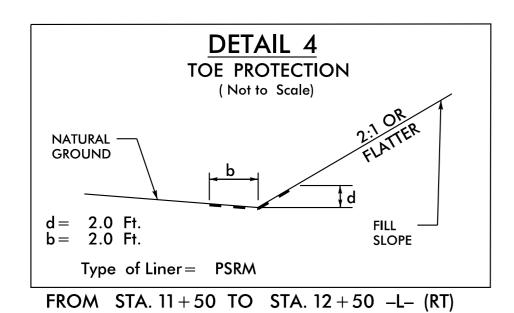


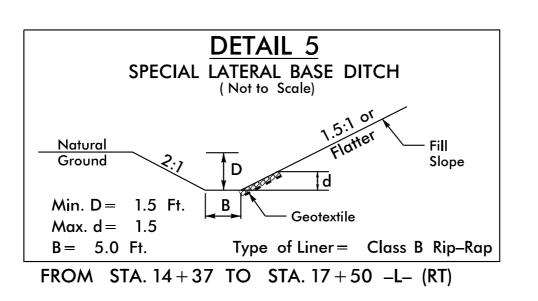
011036406 2D-I ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

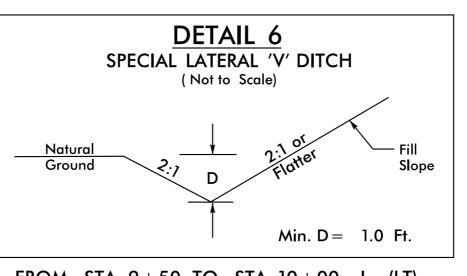
SHEET NO.

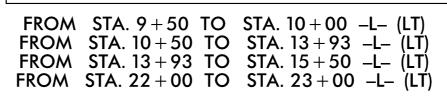
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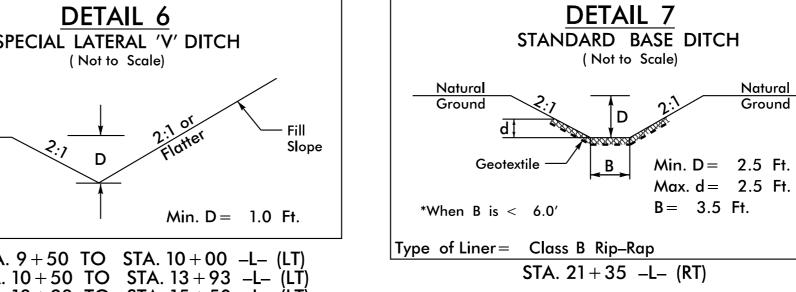
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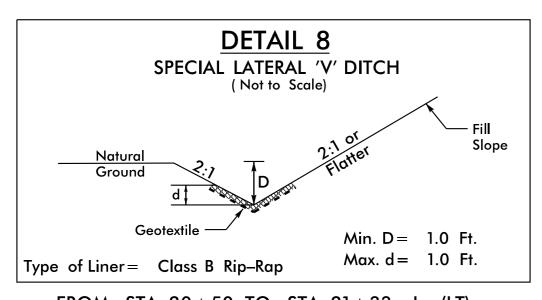












FROM STA. 20+50 TO STA. 21+33 -L- (LT) FROM STA. 21+33 TO STA. 22+00 -L- (LT) PHASE 1 FROM STA. 11+65 TO STA. 11+91 -Y1- (LT)

 COMPUTED BY:
 C. LOWMAN
 DATE:
 9/05/2017

 CHECKED BY:
 C. NUCKOLS
 DATE:
 9/05/2017

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS



PROJECT REFERENCE NO.	SHEET NO.
011036406	3B-I
R/W SHEET NO.	
ROADWAY DESIG ENGINEER	N
CARO  OFESSON  Doorsigned by:  Japan Caroline 1929486  A NUC	4/25/2018
DOCUMENT NOT CONSIDURLESS ALL SIGNATURES	

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.

TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.

FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL. W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.

G = GATING IMPACT ATTENUATOR TYPE TL-2 NG = NON-GATING IMPACT ATTENUATOR TYPE TL-2

#### GUARDRAIL SUMMARY

SURVEY	DEC CTA	END CTA	LOCATION		LENGTH		WARRA	ANT POINT	"N" DIST.	TOTAL	FLARE I	LENGTH	v	V	ANCHO	RS	
LINE	BEG. STA.	END STA.	LOCATION	STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END	FROM E.O.L.	SHOULDER WIDTH	APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-2		REMARKS
-L-	14 + 55.00	17 + 80.00	RT	325′			14 + 80.00	17 + 55.00	2′	4′	25′	25′	1′	1′	2		
			SUBTOTAL	325′											2		
	LESS ANCHOR D	EDUCTIONS															
	GREU TL-3	2 @ 50′	=	50′													
									<u> </u>								
				-													
			TOTAL	275′													
			SAY	275′													

ADDITIONAL GUARDRAIL POSTS = 5 EA

Z4/ ZUIO

COMPUTE	ED BY:			BTV BT	/	DATE:	: 10	0/08/17																														PROJE 	ECT NO.	SHEET
CHECKE	ED BY:				_	DATE	:							NORTH (	CAF	RO]	LINA	DEI	PAI	RTMI	ENT	OF	`TRA	NS	PORT	AT]	ON											Demn	mel Site	3D-1
Note	e: Invert E See "S	Elevation tandard	ns indicat	ted are fo	or Bid	Purposes only an	d shall	not be us	sed for	proje	ect cor	nstruction s	stakeo	ut.			DIV	ISI	ON	OF ]	HIG	HW	AYS																	
			-				,					1	LIST	OF PIPE	ES, E	ENL	<i>WALI</i>	LS, I	ETC	C. (FO	R P	IPE.	S 48 IN	<b>VC</b> E	HES & U	UNI	DER)	)												
LINE & STATION	FSET	STRUCTURE NUMBER			SLOPE	Draina (RCP, CSP, CAAI	ge Pipe P, HDPE,	or PVC)			C. S. PII	PE		R. C. PIPE CLASS III			R. C. PIPE CLASS IV			10WALLS 11 OR STD. 838.11	OTED OTHERWISE) CED ENDWALLS	DRAINAGE STRUCTURE	QUANTIT FOR DRAIN STRUCTU  NOTE: TOTAL LIN. FOR PA QUANTIT SHALL B A + (1.3 X	NAGE IRES . FT. .Y IY BE	FRAME, GRATES, AND HOOD STD. 840.03	. 852.06 CONCRETE TRANSITIONAL	SECTION 3. 840.04 OR STD. 840.05 PROACH D.I. STD. 840.13	. 840.15 S STD. 840.16 0.17 OR STD. 840.26	0.18 OR STD. 840.27 0.19 OR STD. 840.28 IE W/ 2 GRATES STD. 840.20	E W/ 2 GRATES STD. 840.22 E W/ 2 GRATES STD. 840.24 E W/ 2 GRATES STD. 840.29	). 840.32	840.52, OR STD. 840.53 ER STD. 840.54 I. TO C.B.	ELBOW		OLE (PER EACH) SASIN	S CL. "B" STD. 840.72	CK PIPE PLUG STD. 840.71	C.B. C.S. D.I. G.D.I. H.D.P.E. J.B.	CORRUGATED ALUMI CATCH BASIN CORRUGATED STEEL DROP INLET GRATED DROP INLET . HIGH DENSITY POLYE JUNCTION BOX MANHOLE	EL ≣T
SIZE	- A			NOF NOF	SED 8	12 15 18 24 30 36	42 48		12	15 18	24 30	0 36 42 48	12 15	18 24 30 36 42	48 12	15 18	8 24 30 36	42 48	,   _   _	E EN	ESS NG				STD.	STD	STC E API	STD.	D. 84( D. 84( FRAM	RAME RAME	S STD	30VE			NO B B	LAR	) BRI		NARROW SLOT POLYVINYL CHLORID	IDE
			ATIO	EVA]	EQUI			RCP CSP HDPE	PVC											I PIP	(UNL		A .	В	10 P	4 0 R	T C.B	ND GI	3" ST D" ST -AT) I	AG) F (G) FI (AT) F	31 OF 840.3 340.3	ND CANDO	E PIPE	» »	SCOI SIPAT	E FIL	E ANI	R.C.	REINFORCED CONCR	CRETE
THICKNESS OR GAUGE	<b>S</b>	FROM	TOP ELEV	THE INVERTEL INVERTEL	% MINIMUM R			DO NOT USE DO NOT USE DO NOT USE	DO NOT USE	.064	.064	.109							15" SIDE DRAII	18" SIDE DRAII 24" SIDE DRAII	Y CY	S MASONRY	EACH LINI.FT.	T 10' AND T ABOVE	GRATE TYPE  OUT  OUT  OUT  OUT  OUT  OUT  OUT  OU	D.I. STD. 852.	OPEN THROA CONCRETE B	D.I. STD. 840. D.I. FRAME A G.D.I. TYPE ",	G.D.I. TYPE " G.D.I. TYPE "I G.D.I. (W.S. FI	G.D.I. (W.S. S. G.D.I. (N.S. S/ G.D.I. (N.S. FI	J.B. STD. 840. T.B.J.B. STD. T.B.D.I. STD.	M.H. STD. 840 M.H. FRAME / CONVERT EX	ADJUST C.B. ADJUST D.I. 15" DRAINAG	15" C.S. ELBC 18" C.S. ELBC	PREFORMED ENERGY DISS	S FLOWABL	CONCRET SINGLE SINGLE	T.B.J.B. W.S.	TRAFFIC BEARING DE TRAFFIC BEARING JU WIDE SLOT REMARKS	JUNCTION BOX
L 13+93	13 L	T 0401 041	2188.0	2183.6 2183.	2												40		++			+	1	$\vdash$	1 1															
L 12+15	13 L	T 0402 041	2191.8	2188.6 2184.												16	8						1		1 1															
L 11+00 L 12+15		0403 041 T 0404	2191.3	2194.7 2194.												24	4						1						1	1										
L 13+93	20 1	0404 040 T 0405	2187.3	2188.6 2188.	.6	<del>                                     </del>			-				+	+++		8			++			+	1			+			1	1	+++			+			,			
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				2197.3 2195.	.8											36			$\perp \perp$			<u> </u>																		
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L 12+50	23 R		2189.2	2193.1	.0														$\forall t$			+	1					1 1												
L 12+84	26 R	0408 040	2188.1	2187.0 2185. 2185.1 2184.												32							1		1 1															
L 13+00	13 R		2188.9	2165.1 2164.	.9	<del>                                     </del>										20			++			+	1		1 1										$\Box$					
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L 14+35	13 L	T 0411	2188.2																				1		1 1															
1 42 492	42 D	0411 041		2183.2 2182.	.5				-								24		+				1 00		1 1															
L 13+82	13 K	T 0414 042	2188.0	2182.8 2182.	.5	<del>                                     </del>										12			++				1 0.2		1 1						+++									
L 13+84	13 L	T 0415	2188.0																$\dagger \dagger$				1		1 1												,	1		_
L 14+35	13 R	0415 040 T 0416 0416 041	2188.3 2188.3	2184.7 2184.												8	16						1 0.8		1 1										$\prod$					
L 11+00	13 L		2198.6																				1		1 1															
				2194.5 2188.	.6											11	2							$\prod$											$\coprod$	$\perp$				
L 08+87	20 L	T 0420 042	2199.8	2197.5 2197.	2	++++		+		0	+ +	+++	+				+++		++		_	1			+											0.4465				
L 08+93	26 L	0420 042 T 0421	2200.0	-101.0   219/.		++++			+	, o	+ +	+ + + +	$\dashv$				+ + +		++	<del>                                      </del>	+	+	1					1 1	++	+	+++			+	+		,——	+		
L 09+50	20 L	T 0422	2201.3																				1					1 1												
		0422 042		2199.0 2197.					-							56		$\bot \bot$																	++					
L 14+15		T 0423 T 0501	2176.9	2182.3 2182.	.0	<del>                                     </del>			++			+++	$\dashv$			44	4		+		-	+								+	+			$\dashv$	+					
Y1 12+07 Y1 12+14	31 R			2170.9 2170.	.6												32						1 0.3		1 1															
L 23+13	13 R	T 0503	2175.6																				1		1 1										$\Box$					
1.00.55	40 5	0503 050		2170.6 2169.	.5			+			<del>                                     </del>	+++	$\dashv$				68		+	+		<del>                                     </del>								+	+	++-		$\dashv$	++					
L 22+55	13 R	T 0504 050	2173.8	2169.5 2168.	6	++++					+ +	+ + +	+			++	60	+ +	++	+	+	+	1	+	1   1					++	+++	+		+	+			+		
L 21+90	13 R		2172.8	2100.		<del>                                     </del>		+++			+ +	<del>                                     </del>	$\dashv$						++	<del>     </del>		1	1		1 1				++-	++	+++			++	+	+	,——			
		0505 050	06 2	2168.6 2167.	.7												56																							
L 21+33	13 R	T 0506 051	2172.9																$\prod$				1 0.3		1 1						$\prod$				+	$\perp$				
1.04+00	13 L	0506 051 T 0507	2173.3	2167.7 2167.	.5	++++					<del>                                     </del>	+ + +	$\dashv$	20			+		++		-	1	1								+++			-	+					
L 21+33	io L	0507 050		2169.0 2168.	.7	<del>                                     </del>					+ +	+ + + +	+	<del>-                                     </del>			24		++			+	<del>                                     </del>						++	++	+++			$\dashv$	+		,——			

COMPUTED	BY:			BTV			DATE:	10/08/	/17																															L		PROJECT NO.	SHEET N	10
CHECKED	BY:						DATE:							]	ION	RTH CA	<b>IRO</b>	LI	INA DEP	AR	TM	EN	T O	F 1	<b>TRANS</b>	SP(	ORTA	TI	ON													Demmel Site	3D-2	:
																			DIVISIO	N	OF	HI	GHV	WA <sup>*</sup>	YS																			
Note:	Invert E	evations in	ndica	ited are for B	Bid Pu	urposes and S	es only and s Structures, S	shall no Section	ot be u	sed fo	r proje	ct cons	tructio	n stakeou	ut.																													
		ariaara opt	JOII10		Todac	o arra s	5ti a0tai 00, 0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-				LIST	OF	F PIPES,	ENI	DV	VALLS, E	TC	F	OR I	PIPI	$\Xi S$ 4	48 INCH	HE	ES & U	ND.	ER)															
																									QUANTITIES		ц	'AL	13		340.20	0.24	40.29							0.71	<u>AE</u>	BBREVIATIONS C.A.A. CORRUGATED A	ALUMINIUM ALLOY	
		BER																					H H	FO S	OR DRAINAGE STRUCTURES			SITION	840.0	26	28 STD. 8	TD. 84	E D. 8	840.53					10.72	D. 84		C.B. CATCH BASIN		
LINE & STATION		NO.				(RC	Drainage P P, CSP, CAAP, H	Pipe IDPE. or P	VC)		(	C. S. PIPE			R. C. CLAS				C. PIPE _ASS IV			11 ISE)	S				FRAME, GRATES,	RANS	STD.	. 840.	. 840. TES S	ES SI ES SI	LES S				(CH)		ID. 84	JG ST		<b>D.I.</b> DROP INLET		
		TURE				•	, , - ,	,	-,												S	D. 838. THERW	DWALL		NOTE: TOTAL LIN. FT. FOR PAY		AND HOOD	<u>-</u>	94 OR 3H D.I 5	840.7 3 STD	S STD	GRAT GRAT	GRA 2	OR STD.	ei l		ER E/		B" S.	žE PL		<b>G.D.I.</b> GRATED DROP II <b>H.D.P.E.</b> HIGH DENSITY P		
	SET	TRUC		I I I	) 																)WALL	838.01 OR STD.	ED ENI		QUANTITY SHALL BE	340.02	STD. 840.03	852.00	840.0 ROAC 840.1	STD. 17 OF	19 OF:	W/ 2 (	840.3	0.52, STD.	10 C.	MO	LE (PI	$\overline{\Omega}$	C.	X PP		J.B. JUNCTION BOX M.H. MANHOLE		
SIZE	OFF	ω		NO O G	12	15 18	24 30 36 42	48		12	15 18	24 30	36 42	48 12 15	18 24	30 36 42 48	12 15	18 2	24 30 36 42 48		EN	838.01 SS NO	FORC		A + (1.3 X B)	STD. 8	į	S D.	STD.	ATES . 840.	. 840. RAME	AME	SAME STD.	TD. 84 OVER		ELB	R HO	ION BA	LARS	BRIC		N.S. NARROW SLOT		
			ATION	EVATI	2			ا ا	SP	2									++++		PIPE	STD.			A B	I OR		4 OK	r c.B. RIDGE 4 OR	ID GR	" STD AT) F	G) FR G) FR	AT) FR 11 OR 140.34	40.35 51, ST ND C(	STING	PIPE	N N	PATI(	COL	AND	^ AL	P.V.C. POLYVINYL CHLC R.C. REINFORCED CC		
THICKNESS				IT ELI				USEF	USE (	USE F	4 4	4 6								RAIN	RAIN		SN S	<u> </u>	7 10, 1	840.0	GRATE 8	852.0	TE BF 840.1	ME AN	PE "D S. FL	S. SA :	N.S. FL. TD. 840.3 3. STD. 8	TD. 8	C.B.	NAGE	ELBO MED (	DISS	RETE	RETE	I	T.B.D.I. TRAFFIC BEARIN		
OR GAUGE		NO NO	TOP	NVE NVE				NOT	NOT	NOT .06	.064	.06	.10	6						SIDE DRAIN F	IDE [		\(\frac{\partial}{\partial}\)	THR	THRI THRI BOVE	STD.	TYPE	SID.	EN TH NCRE STD.	FRAN	.I. TY	<u> </u>	STD.	D.I. S I. STD I. FRA	NVER JUST	DRAI	C.S. I	FLOW	CONC	CONC		W.S. WIDE SLOT		
		T OT	FT.	FT. FT. 9	≥ %			00	8 8	8										15" 9	24" 8	CY	CY C	Y EA	ACH LIN. FT. LIN. FT.	C.B.	E F G	C.B	COI D.I.	G.D	Q.Q	G.D	G.D J.B.	A.H.M.	CO AD	15   15	18 18 PRE	EY CY	СҮ	CY LIN	 N. FT.	REMARK	KS	_
		0508 0517		2176.7 2170.0													2	212																										_
L 17+25	13 LT	0509 21 0509 0508	86.7	2183.5 2176.7													1	156							1	1	1																	
L 17+50	13 RT	0511 21	85.6																						1	1	1																	_
1 47.05	22 17	0511 0520	-	2182.6 2178.3		24								+++											1 25			+					1	1		2								_
L 17+25	23 LT	0514 21 0514 0509	92.1	2183.6 2183.5										1				8							3.5																			_
Y1 11+91	14 LT	+ + + + + + + + + + + + + + + + + + + +	77.1																						1	1	1																	_
L 20+97	13 LT	0516 0501 0517 21	73.3	2173.6 2173.5														20						,	1	1	1																	_
£ 20·07	10 11	0517 0507		2170.0 2169.8 0.	.3													36							<u>'</u>		<u>'</u>																	_
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Y1 11+75	15 LT	0519 0516 0521 21	77.8	2175.5 2173.6 0.	0.6						12			+											1	1	1	+																_
		0521 0516	2	2174.8 2173.9													16																											_
Y1 10+60 L 19+16	54 RT	0522											++					$\perp$		$\perp$				-				+			+++	+	1	1			++-	2			See	e site plans for exist elevations, N	Match surface elevatio	ns
L 18+64	14 LT												+																												40			_
L 22+32	17 RT																																								30			_
L 21+51 L 22+84	19 RT												++	+	-											H		+		+	+++									2	80			_
L 11+34	16 RT																																					2						_
L 12+73 L 11+05	17 RT													+				_			+							+				+						2			5			_
L 11+05	10 K1													1																											5			_
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L = 45.48'

T = 23.24' R = 90.00'

PI Sta 10+07.13 PI Sta 11+32,13 PI Sta 15+34**.**83 PI Sta 22+35**.**37  $\triangle = 56^{\circ}16'33.J''(RT)$  $\triangle = 9^{\circ} 41' 10.6'' (LT)$  $\triangle = 1^{\circ}12'54J''(LT)$  $\triangle = 30^{\circ} 37' 16.3'' (RT)$  $\overline{D} = 5^{\circ} 43' 46.5''$  $D = 63^{\circ}39'43.1''$  $D = 0^{\circ} 34' 22.6''$  $D = 22^{\circ}55'05.9''$ L = 212.06' T = 106.03' L = 133.61' $L = 88.40^{\circ}$ L = 169.06'T = 48.13'T = 84.73'T = 68.44'R = 10,000.00'R = 250.00'R = 90.00'R = 1,000.00'PI Sta 11+27.76  $\triangle = 28^{\circ} 57' 22.4'' (LT)$  $D = 63^{\circ}39'43J''$ 

Kimley Horn
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, N.C. 27601

RW SHEET NO.

ROADWAY DESIGN
ENGINEER

CARO

Decusigned by:

UNIVERSESSION

DOCUSIGNED BY:

DO

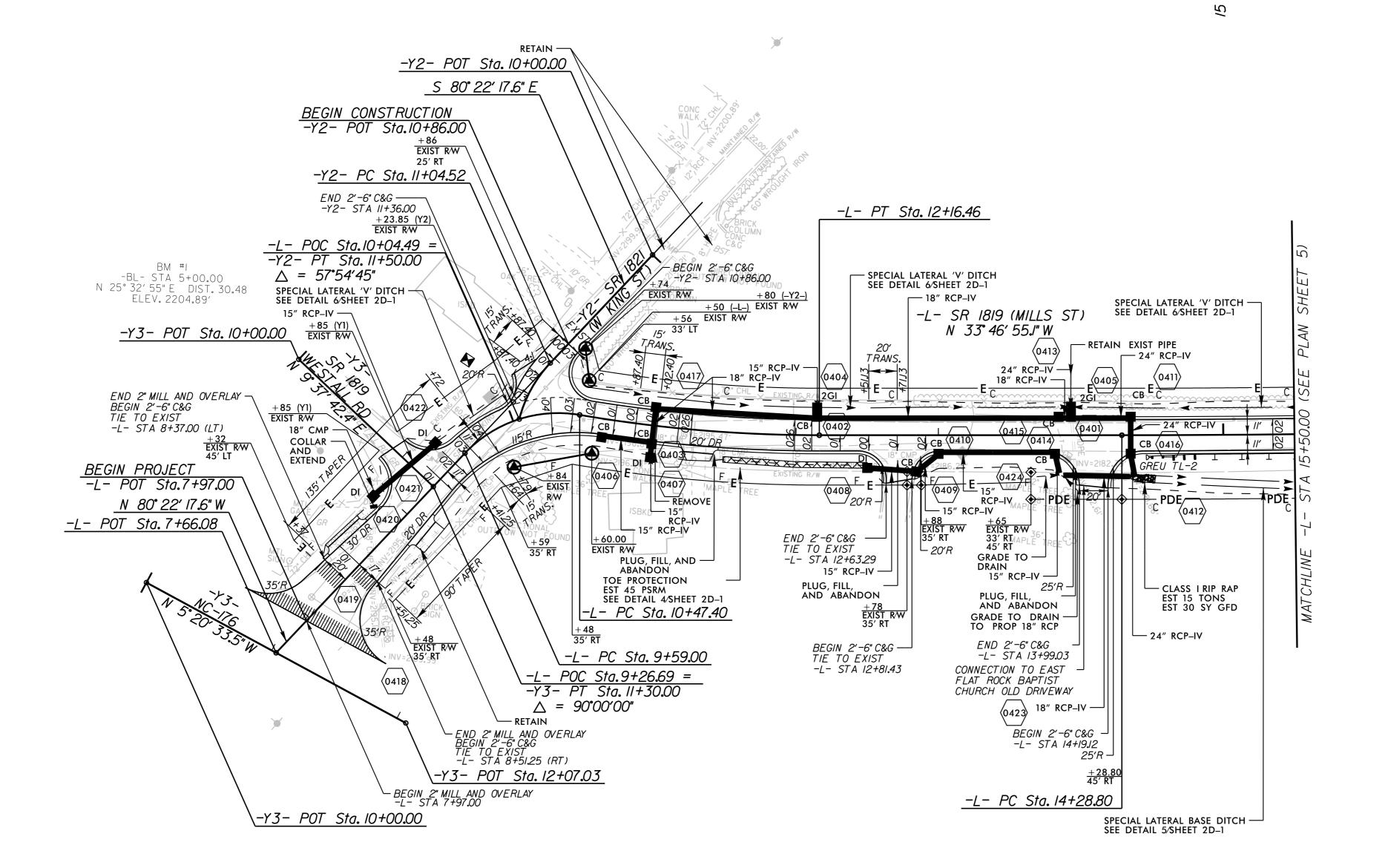
SHEET NO.

4

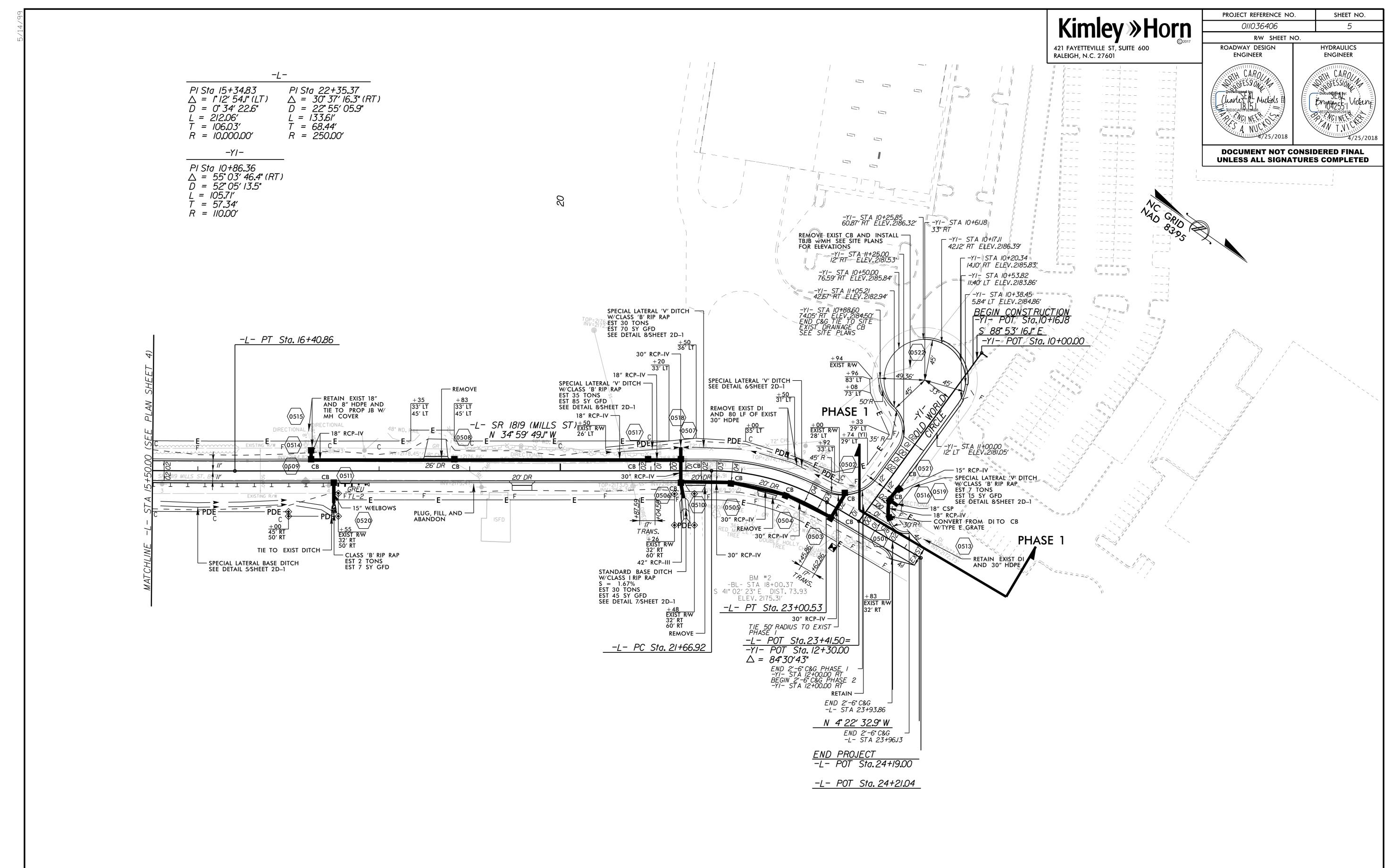
PROJECT REFERENCE NO.

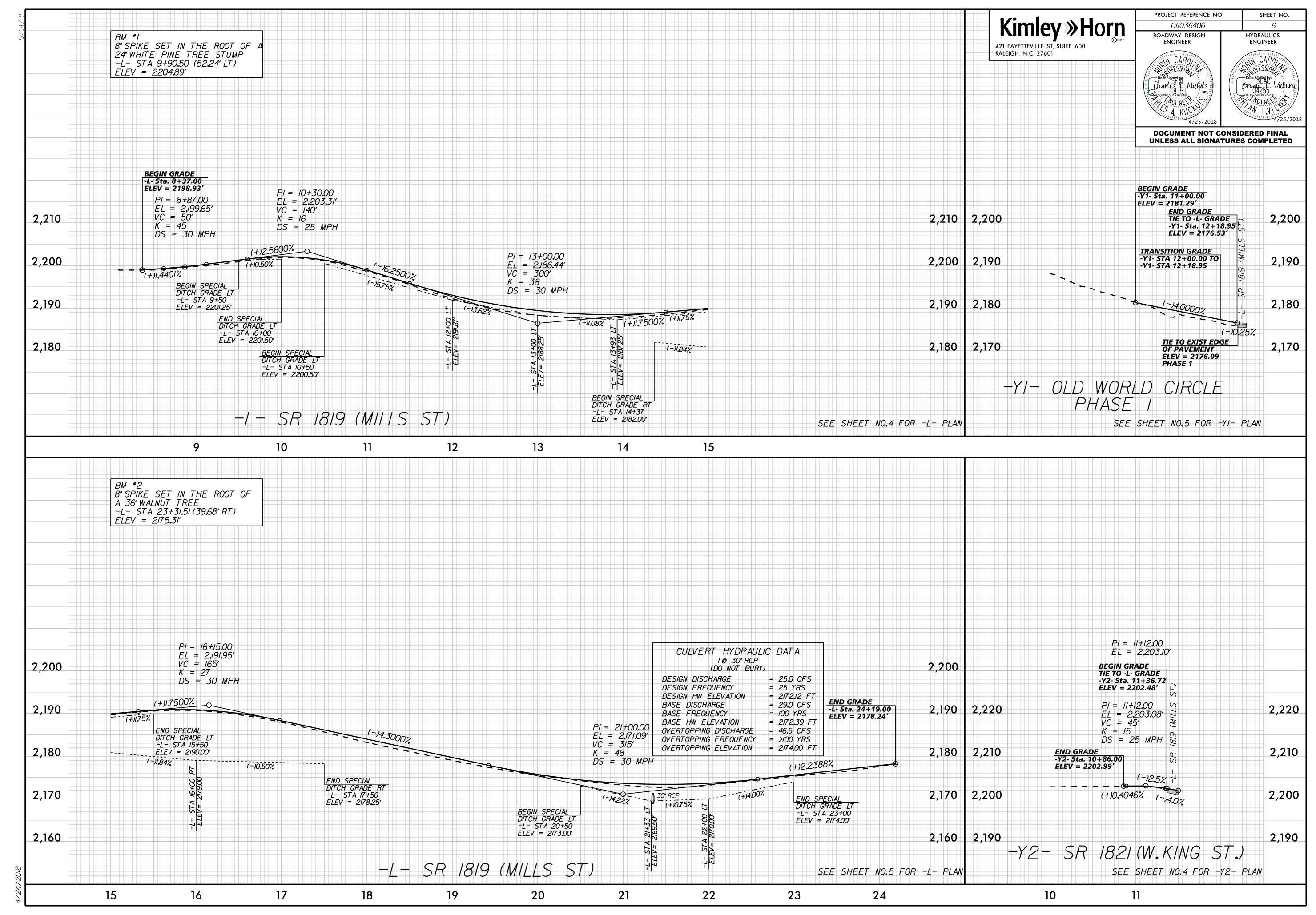
011036406

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SEE SHEET 6 FOR -L- PROFILE SEE SHEET 6 FOR -Y2- PROFILE





## TRAFFIC NOTES

ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST MUTCD AND 2012 NCDOT STANDARDS

421 FAYETTEVILLE ST, SUITE 600

CAROLLO DOCUSIONE DA Charles II. Mukols 1

SHEET NO.

TMP-I

PROJECT REFERENCE NO.

011036406

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED** 

RALEIGH, N.C. 27601

#### TIME RESTRICTIONS

REMOVAL OF DEVICES.

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

#### ROAD NAME

DAY AND TIME RESTRICTIONS MONDAY THROUGH FRIDAY FROM 6 AM TO 9 AM AND FROM 4 PM TO 7 PM

ADAPT THE TRAFFIC CONTROL CONCEPTS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE

DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT

SAFE AND EFFICIENT TRAFFIC MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE

UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR

2. SR 1821 W. KING ST

1. SR 1819 MILLS ST

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

#### ROAD NAME

DAY AND TIME RESTRICTIONS

ANYTIME

- 1. SR 1819 MILLS ST
- 2. SR 1821 W. KING ST
- C) DO NOT STOP TRAFFIC AS FOLLOWS:

#### ROAD NAME

DAY AND TIME RESTRICTIONS

MONDAY THROUGH FRIDAY FROM 6 AM TO 9 AM AND FROM 4 PM TO 7 PM

- 1. SR 1819 MILLS ST 2. SR 1821 W. KING ST
- D) DO NOT STOP TRAFFIC FOR MORE THAN 15 MINUTES AS FOLLOWS:

#### ROAD NAME

OPERATION

MONDAY THROUGH FRIDAY FROM 6 AM TO 9 AM AND FROM 4 PM TO 7 PM 1. SR 1819 MILLS ST 2. SR 1821 W. KING ST

E) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

#### LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 40 FT OF AN OPEN TRAVEL LANE. CLOSE THE NÉAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK ARÉA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FÁCILITY. CLOSE THE LANE ACCORDING TO BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- J) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- K) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FT OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.

#### PAVEMENT EDGE DROP OFF REQUIREMENTS

L) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER.

M) DO NOT EXCEED A DIFFERENCE OF 1.5 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE OF THE UNEVEN AREA.

#### SIGNING

N) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER.

- O) PROVIDE PERMANENT SIGNING.
- P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

#### TRAFFIC CONTROL DEVICES

- Q) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.
- R) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 300 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES

#### PAVEMENT MARKINGS AND MARKERS

- S) INSTALL PAVEMENT MARKINGS AS SHOWN ON PLAN SHEETS.
- T) REFER TO SECTION 1205 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES DATED JANUARY 2012 FOR APPLICATION TIMES AND TEMPERATURE CONDITIONS FOR PAVEMENT MARKINGS.
- U) PLACE AT LEAST TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE ON NEW ASPHALT PAVEMENT. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.
- V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- W) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.
- X) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.
- Y) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY PAINT PAVEMENT MARKINGS UNTIL COMPLETION OF THERMOPLASTIC PAVEMENT MARKING INSTALLATION.
- Z) BEFORE SHIFTING TRAFFIC TO NEW LOCATIONS, CONTRACTOR SHALL REMOVE ANY MARKINGS WHICH CONFLICT WITH THE NEW TRAFFIC PATTERN(S).

#### PEDESTRIAN AND BICYCLIST SAFETY

- AA) PEDESTRIAN AND BICYCLIST SAFETY MUST BE MAINTAINED AT ALL TIMES BY ADEQUATE PROJECT LIMITS, FENCING, AND SIGNAGE.
- BB) MAINTAIN CROSSWALK MARKINGS AT ALL TIMES. PLACE NEW TEMPORARY MARKINGS AND REMOVE EXISTING CONFLICTING MARKINGS UPON COMPLETION OF NEW WHEEL CHAIR RAMPS. TEMPORARY CROSSWALK MARKINGS SHALL BE 8" WHITE PAINT AND PLACED IN ACCORDANCE WITH NCDOT STANDARD DRAWING NO. 1205.07. APPLY TEMPORARY PAINT, HIGH VISIBILITY CROSSWALK MARKINGS WHEN DIRECTED BY THE ENGINEER.

#### MISCELLANEOUS

- CC) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH INTERSECTIONS.
- DD) STOCKPILE EXISTING SIGNS FOR USE WHEN NEEDED IN TEMPORARY LOCATIONS DURING CONSTRUCTION.
- EE) ACCESS SHALL BE MAINTAINED TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES.
- FF) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) AND RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

# ADVANCE WARNING SIGNS

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ADVANCE WARNING SIGN SPACING IS RECOMMENDED TO BE THE FOLLOWING:
  - SR 1819 MILLS ST 500' BEFORE CONSTRUCTION LIMITS
  - SR 1821 W. KING ST 500' BEFORE CONSTRUCTION LIMITS
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3 LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3 LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B). MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3 LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.

421 FAYETTEVILLE ST, SUITE 600 RALEIGH, N.C. 27601

TEMPORARY LANE CLOSURE TRAFFIC PATTERN (NCDOT STD. 1101.02)

-L- SR 1819 (MILLS ST)

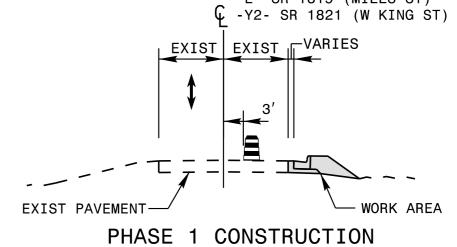
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PROJECT REFERENCE NO.

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SHEET NO.

TMP-2



# -L- SR 1819 (MILLS ST) & -Y2- SR 1821 (W KING ST)

#### PHASING NOTES

#### STEP 1

THE CONTRACTOR SHALL PLACE ALL ADVANCE WARNING SIGNS PRIOR TO BEGINNING WORK ACCORDING TO NCDOT STANDARD DRAWING NO. 1101.01. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

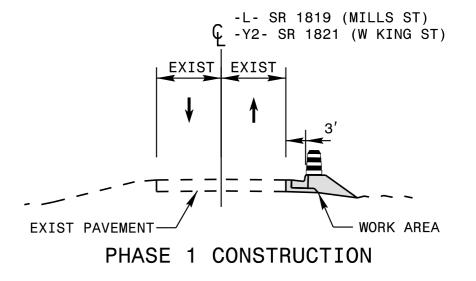
WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL CONSTRUCT PROPOSED IMPROVEMENTS ON THE EAST SIDE OF -L- SR 1819 (MILLS ST) & -Y2- SR 1821 (W KING ST) INCLUDING MILLING, PAVEMENT WIDENING, DRAINAGE STRUCTURES AND DITCHES, AND PROPOSED CURB AND GUTTER INSTALLATION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE PAVEMENT.

WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL CONSTRUCT PROPOSED IMPROVEMENTS ON THE WEST SIDE OF -L- SR 1819 (MILLS ST) & -Y2- SR 1821 (W KING ST) INCLUDING MILLING, PAVEMENT WIDENING, DRAINAGE STRUCTURES AND DITCHES, AND PROPOSED CURB AND GUTTER INSTALLATION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE PAVEMENT.

#### STEP 3

WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL INSTALL THE FINAL ASPHALT SURFACE COURSE, FINAL PAVEMENT MARKINGS, PLACE TRAFFIC ONTO FINAL PATTERN, AND REMOVE ALL TRAFFIC CONTROL DEVICES AND SIGNAGE.

"END OF DAY" TRAFFIC PATTERN



TEMPORARY LANE CLOSURE TRAFFIC PATTERN (NCDOT STD. 1101.02)

PHASE 2 CONSTRUCTION

-L- SR 1819 (MILLS ST) C -Y2- SR 1821 (W KING ST) VARIES \_ EXIST EXIST -EXIST PAVEMENT

"END OF DAY" TRAFFIC PATTERN

WORK AREA-

-L- SR 1819 (MILLS ST) 🗘 -Y2- SR 1821 (W KING ST) | EXIST | EXIST WORK AREA-PHASE 2 CONSTRUCTION

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# HENDERSON COUNTY

APPROVED:

DATE:

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SHEET NO.

PROJECT REFERENCE NO.

LOCATION: FROM THE INTERSECTION OF WEST KING STREET AND NC 176 TO APPROX. 1600' NORTH TO OLD WORLD CIRCLE ON SR 1819 (MILLS STREET)

#### **INDEX**

SHEET NO. DESCRIPTION

PMP-1 PAVEMENT MARKING PLAN COVER SHEET

PMP-2 N/A

PMP-3 THRU PMP-4 PAVEMENT MARKING DETAILS

#### ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1261.01	GUARDRAIL AND BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

#### PAVEMENT MARKING SCHEDULE

SYMBOL UC UN	DESCRIPTION THERMOPLASTIC SYMBOLS (90 MILS) STRAIGHT ARROW YIELD LINE TRIANGLE THERMOPLASTIC (4", 90 MILS)
ТВ	YELLOW EDGELINE
TI T8 T9	THERMOPLASTIC (4", 120 MILS) YELLOW DOUBLE CENTER LINE WHITE 2' - 6'/SP MINISKIP YELLOW 2' - 6'/SP MINISKIP
TN TP	THERMOPLASTIC (8", 90 MILS) WHITE GORELINE YELLOW DIAGONAL
T10	THERMOPLASTIC (12", 120 MILS) WHITE 3' - 3'/SP MINISKIP
Т2	THERMOPLASTIC (24", 120 MILS) WHITE STOPBAR MARKERS
MA MB	PERMANENT RAISED PERMANENT RAISED

#### GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
-L-	THERMOPLASTIC	PERMANENT RAISED
-Y1-	THERMOPLASTIC	PERMANENT RAISED
-Y2-	THERMOPLASTIC	PERMANENT RAISED

- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.
- F) ALL TRAVEL LANES ARE 11' WIDTH UNLESS OTHERWISE NOTED.

PLAN PREPARED BY: Kimley-Horn and Associates
P. O. BOX 33068
RALEIGH, NC 27636
PE NO. F-0102

Charles A. Nuckols P.E. PROJECT DESIGN ENGINEER

Caleb D. Lowman E.I. DESIGNER

**Kimley** » Horn

Kimley » Horr

421 FAYETTEVILLE ST, SUITE 600 RALEIGH, N.C. 27601

RIGHT-OF-WAY REV.

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PROJECT REFERENCE NO.

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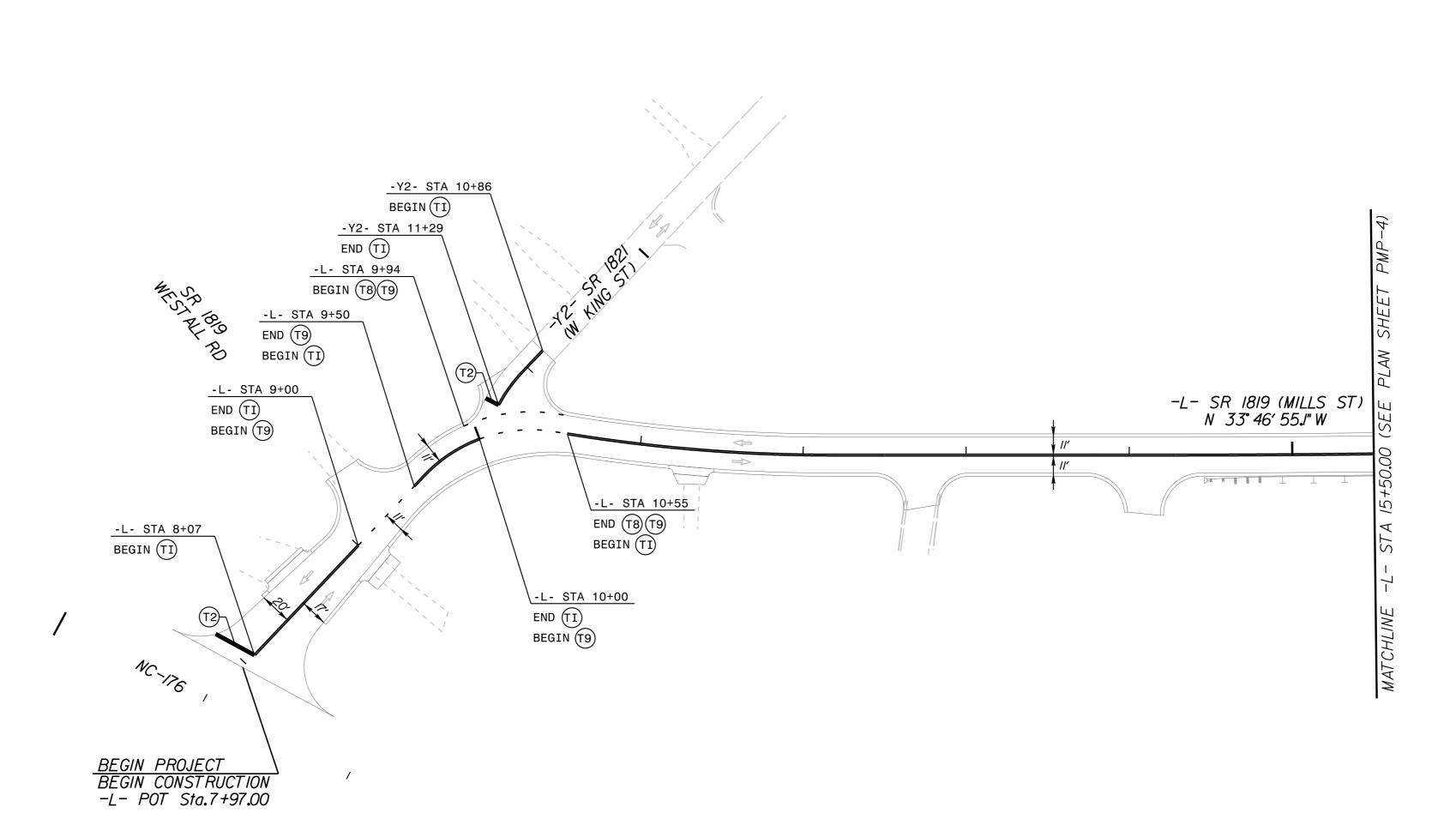
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#### PAVEMENT MARKING LINES

- TB THERMOPLASTIC (4" YELLOW, 90 MILS) EDGELINE
  TI THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTER
  TN THERMOPLASTIC (8" WHITE, 90 MILS) GORELINE
- TP THERMOPLASTIC (8" YELLOW, 90 MILS) DIAGONAL
  T2 THERMOPLASTIC (24" WHITE, 120 MILS) STOP BAR
  T8 THERMOPLASTIC (4" WHITE, 120 MILS) 2' 6'/SP MINISKI
- T8 THERMOPLASTIC (4" WHITE, 120 MILS) 2' 6'/SP MINISKIP
  T9 THERMOPLASTIC (4" YELLOW, 120 MILS) 2' 6'/SP MINISKIP
  T10 THERMOPLASTIC (12" WHITE 120 MILS) 3' 3'/SP MINISKIP
- T10 THERMOPLASTIC (12" WHITE, 120 MILS) 3' 3'/SP MINISKIP
- UC THERMOPLASTIC (STRAIGHT ARROW) (90 MILS)
  UN THERMOPLASTIC (24" YIELD LINE TRIANGLE) (90 MILS)

PAVEMENT MARKING SYMBOLS

NOTES:
1. CONTRACTOR TO TIE PROPOSED MARKINGS TO

DRAWINGS.

EXISTING MARKINGS AT PROJECT LIMITS.
2. CONTRACTOR SHALL MILL ANY EXISTING MARKINGS OR SYMBOLS IN CONFLICT WITH PROPOSED MARKINGS.
3. RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE

PLACED ACCORDING TO NCDOT ROADWAY STANDARD

- PAVEMENT MARKER LEGEND
- CRYSTAL / RED PAVEMENT MARKER
- → YELLOW / YELLOW PAVEMENT MARKER→ DIRECTION OF TRAFFIC FLOW

L\_Roadway\011036406 - Div 14 - Demmel Site

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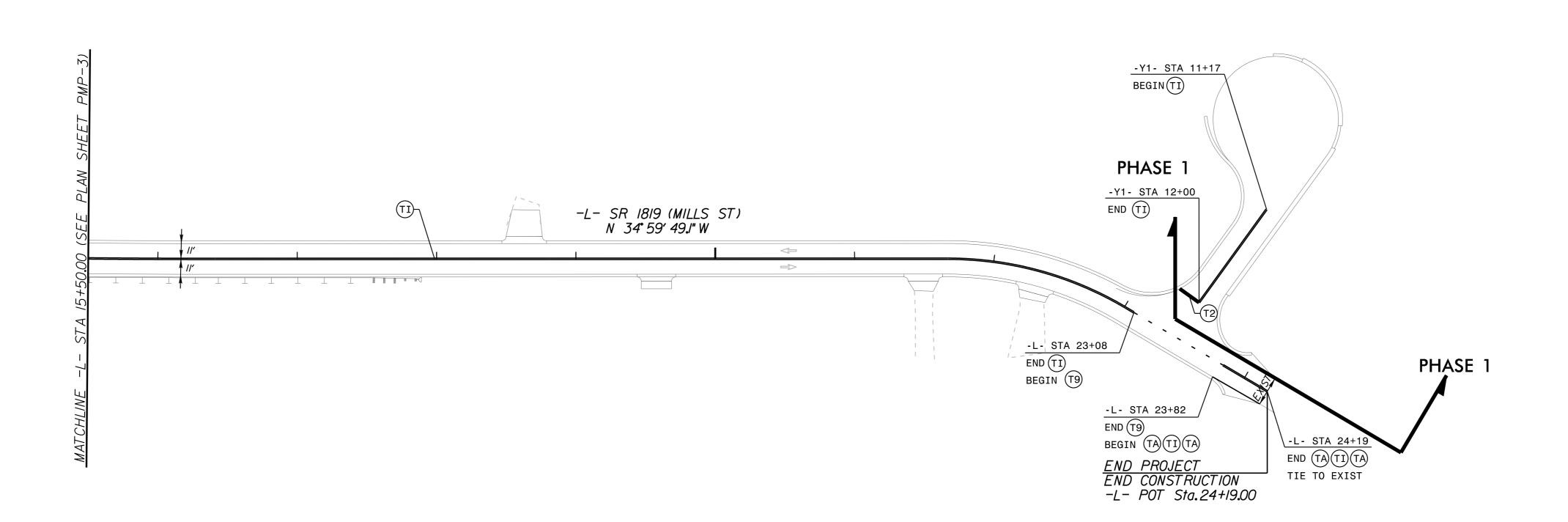
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DATE:



#### PAVEMENT MARKING LINES

TB - THERMOPLASTIC (4" YELLOW, 90 MILS) EDGELINE
TI - THERMOPLASTIC (4" YELLOW, 120 MILS) DOUBLE CENTER
TN - THERMOPLASTIC (8" WHITE, 90 MILS) GORELINE TP - THERMOPLASTIC (8" YELLOW, 90 MILS) DIAGONAL T2 - THERMOPLASTIC (24" WHITE, 120 MILS) STOP BAR T8 - THERMOPLASTIC (4" WHITE, 120 MILS) 2' - 6'/SP MINISKIP T9 - THERMOPLASTIC (4" YELLOW, 120 MILS) 2' - 6'/SP MINISKIP

T10 - THERMOPLASTIC (12" WHITE, 120 MILS) 3' - 3'/SP MINISKIP

PAVEMENT MARKING SYMBOLS

UC - THERMOPLASTIC (STRAIGHT ARROW) (90 MILS)
UN - THERMOPLASTIC (24" YIELD LINE TRIANGLE) (90 MILS)

1. CONTRACTOR TO TIE PROPOSED MARKINGS TO EXISTING MARKINGS AT PROJECT LIMITS.

DRAWINGS.

2. CONTRACTOR SHALL MILL ANY EXISTING MARKINGS OR SYMBOLS IN CONFLICT WITH PROPOSED MARKINGS. 3. RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE

PLACED ACCORDING TO NCDOT ROADWAY STANDARD

#### PAVEMENT MARKER LEGEND

- CRYSTAL / RED PAVEMENT MARKER

 YELLOW / YELLOW PAVEMENT MARKER - DIRECTION OF TRAFFIC FLOW

NARRATIVE

Project Description

The North Carolina Department of Transporation proposes to upgrade SR 1819 (Mills St.) and SR 1821 (W King St.) to a widening project from NC-176 North past the future development and site drive. Approximately 1.44 acres will be disturbed during the construction of this project. Also, approximately 0.88 acres will be vegetatively stabilized with grass and permanent plantings.

The widening project of SR 1819 (Mills St.) and SR 1821 (W King St.) is located in Henderson County, NC. The project extends approximately 0.30 miles. The proposed curb and gutter typical section will be constructed on an existing two-lane roadway with a four foot berm width extending past the interesction of the new location Site Drive. Contractor shall use WestEd Seed Mix design.

#### Site Description

The site is generally rolling and contains some drainage ways that are bordered by moderate slopes. Land use along the roadway is partially undeveloped and primarily residential where theres existing development. The majority of the drainage from the project site makes its way through a series of ditches and storm drain systems. All outfalls to the east make their way to unnamed tributaries traveling north and empties into the French Broad River within the French Broad River Basin. No new drainage patterns were introduced. The fill slopes and drainage ditches around the project appear to be stable and do not show signs of significant erosion soils.

#### Soil

The soil types throughout the project limits are mostly Hayesville loam and sandy loam (TeB, HyC and HyB,).

IMPERVIOUS AND PERVIOUS SURFACES
IN THE DISTURBED AREA

PROPOSED IMPERVIOUS SURFACE = 0.54 AC PROPOSED PERVIOUS SURFACE = 0.88 AC

DIRECTION OF FLOW

----- PROJECT DENUDED AREAS

Total Disturbed Area (shaded) = 1.44 acres

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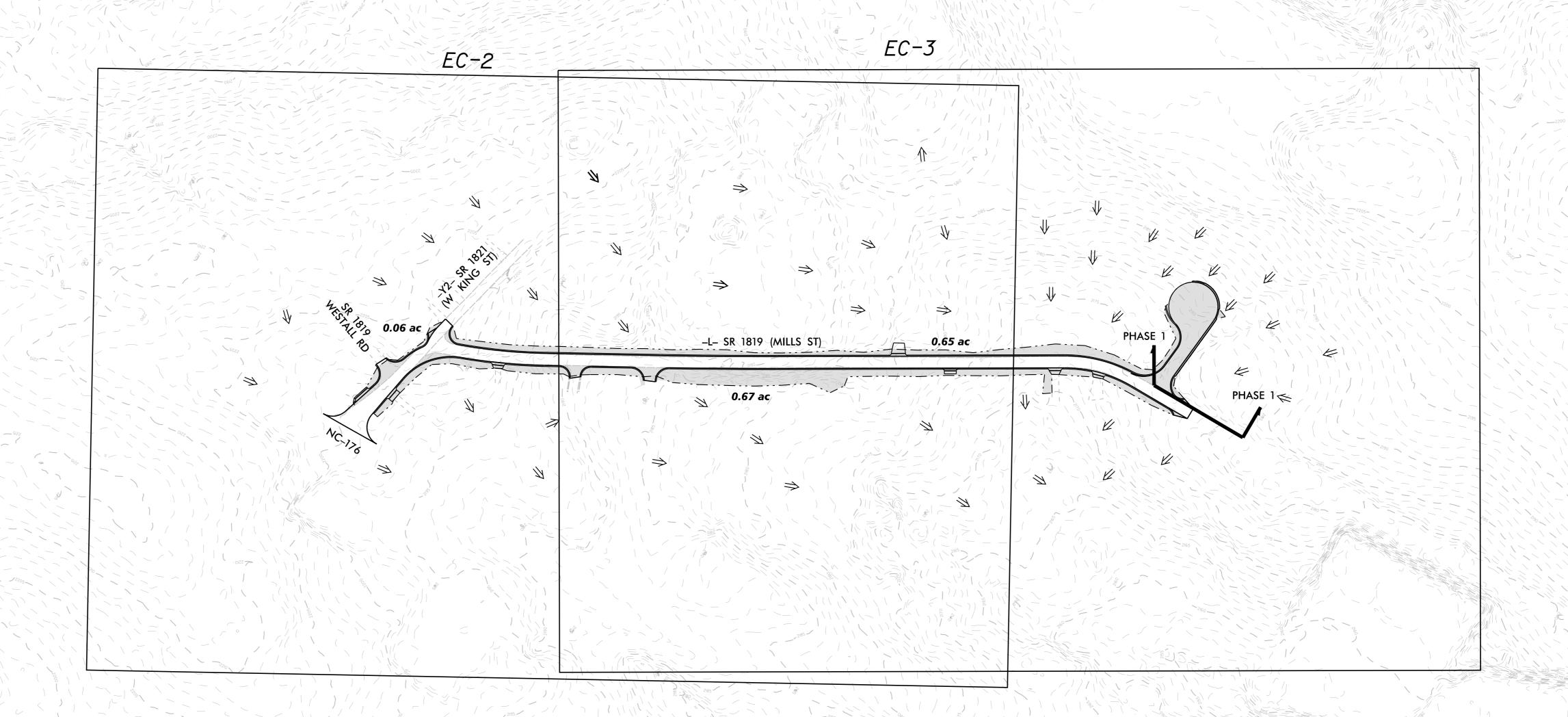
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KIMIEY HORN

421 FAYETTEVILLE ST, SUITE 600

RALEIGH, N.C. 27601



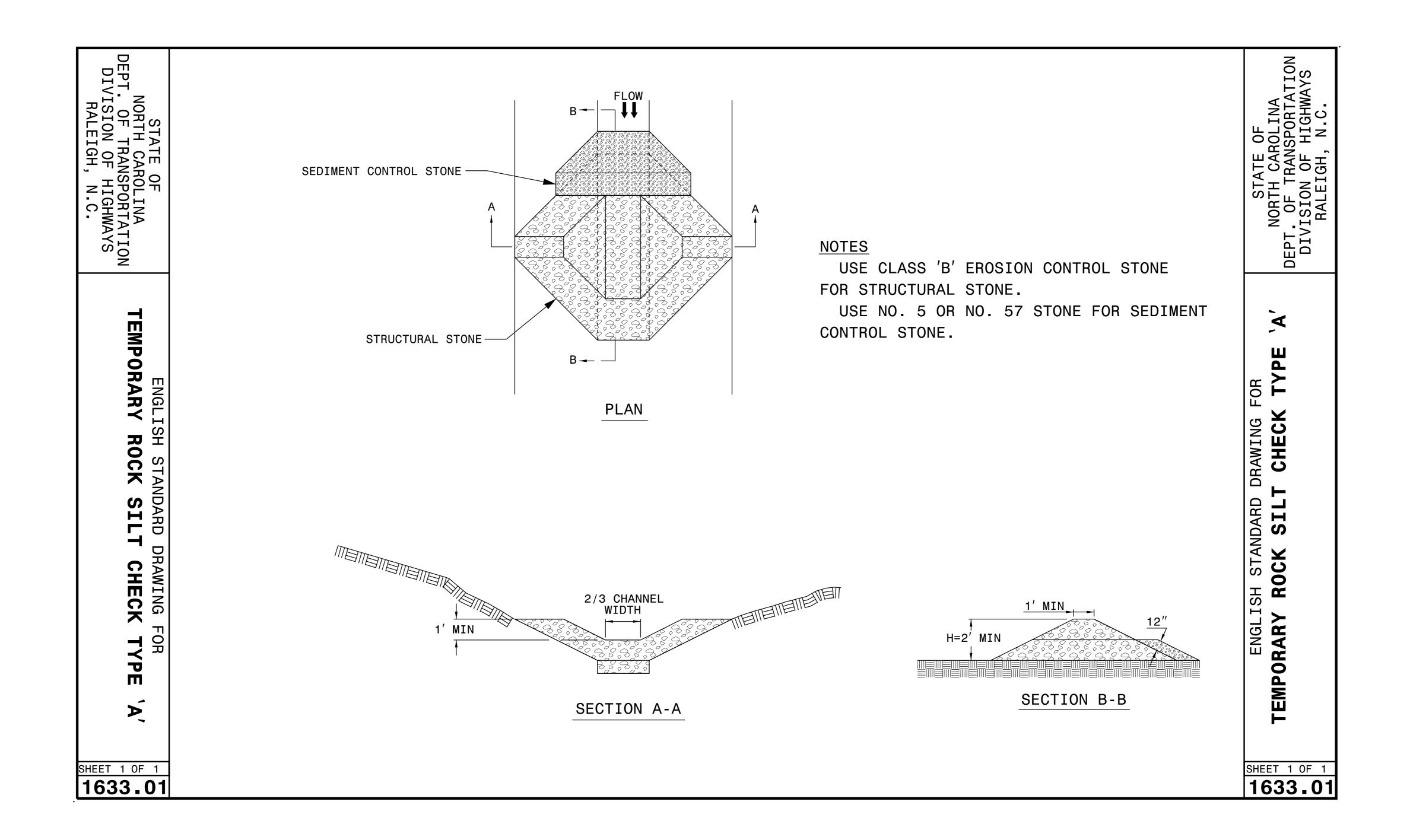
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Kimley >>> Horn

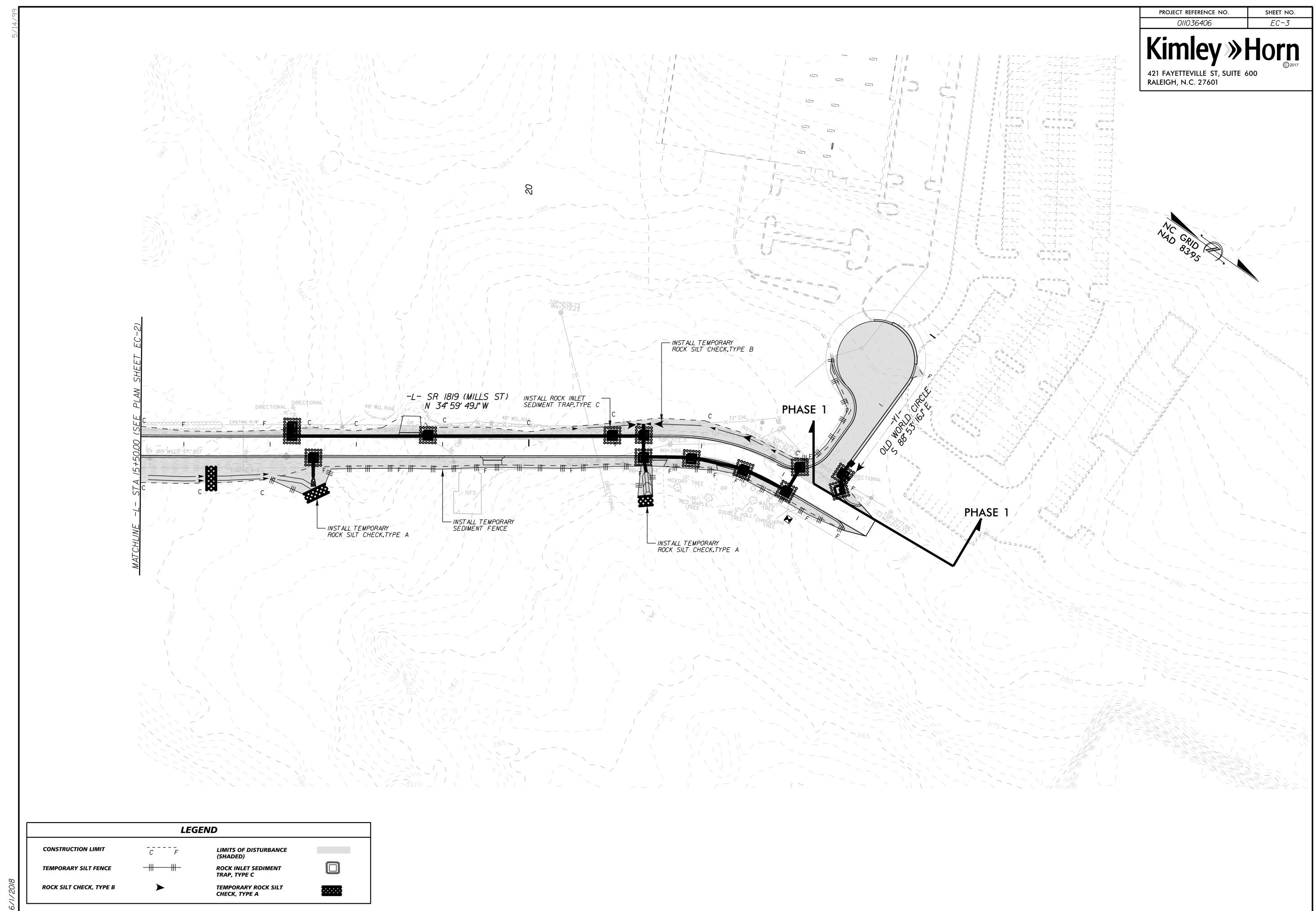
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SHEET NO. PROJECT REFERENCE NO. 011036406 EC-2 421 FAYETTEVILLE ST, SUITE 600 RALEIGH, N.C. 27601 NSTALL TEMPORARY
ROCK SILT CHECK, TYPE B -L- SR 1819 (MILLS ST) N 33°46′55.1"W INSTALL TEMPORARY — ROCK SILT CHECK,TYPE A — INSTALL ROCK INLET SEDIMENT TRAP,TYPE C **LEGEND** LIMITS OF DISTURBANCE (SHADED) **CONSTRUCTION LIMIT** ROCK INLET SEDIMENT TRAP, TYPE C TEMPORARY SILT FENCE TEMPORARY ROCK SILT CHECK, TYPE A ROCK SILT CHECK, TYPE B



# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# HENDERSON COUNTY

LOCATION: FROM THE INTERSECTION OF WEST KING STREET AND NC 176 TO APPROX. 1600' NORTH TO OLD WORLD CIRCLE ON SR 1819 (MILLS STREET)

PROJECT REFERENCE NO.	SHEET NO.
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#### ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	<u>TITLE</u>
901.50	ARROWS AND SHIELDS
901.70	SIGN STRINGERS AND SUPPORT SPACING
903.10	GROUND MOUNTED SIGN SUPPORTS (EXCEPT FOR SHEET 1 OF 3 WHICH
	IS REPLACED WITH SIGN-1A AND SHEET 2 OF 3 WHICH IS REPLACED
	WITH SIGN-1B IN PLANS)
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
	·

#### GENERAL NOTES

- WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.
- WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.
- NCDOT TO PROVIDE SIGNS TO CONTRACTOR
- CONTRACTOR TO COORDINATE INSTALLATION WITH NCDOT. CONTRACTOR TO PROVIDE 3 WEEKS NOTICE TO NCDOT BEFORE INSTALLATION TO BEGIN.

## **INDEX**

SHEET NO.

DESCRIPTION

SIGN-1

TITLE SHEET

N/A

SIGN-3

TYPE "E" SHEET

SIGN-4 THRU SIGN-5

SIGNING PLAN SHEETS

PLAN PREPARED BY: KIMLEY-HORN AND ASSOCIATES, INC.

Charles A. Nuckols P.E. PROJECT DESIGN ENGINEER

Caleb D. Lowman E.I. DESIGNER

**Kimley Morn** 

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401 QUANTITY REQ'D _3_	402 QUANTITY REQ'D _1_	403 QUANTITY REQ'D _2_	404) QUANTITY REQ'D _2_	405 QUANTITY REQ'D _1_	406 QUANTITY REQ'D _1_	PROJECT REFERENCE NO.  011036406	SHEET NO.
NEW TRAFFIC 36" x 36"	30" X 30"		SPEED LIMIT 24" X 30"	30" X 30"	30" X 30"	APPROVED:  DATE:  SEAL  CAROLINA  CA	
PATTERN AHEAD	W1-2R	20 M.P.H.	25 R2-1	W1 - 2L	W3 - 1	Docusianed by:  Charles II. Mukal  3003CADUF9224B6	4/25/2018
ONE "U" POST PER SIGN	ONE "U" POST PER SIGN	ONE "U" POST PER SIGN MOUNT BELOW SIGN #402 & #405	ONE "U" POST PER SIGN	ONE "U" POST PER SIGN	ONE "U" POST PER SIGN	DOCUMENT NOT CONSIDE	ERED FINAL COMPLETED
407 QUANTITY REQ'D _3_	408) QUANTITY REQ'D _1_						
STOP 30" X 30" R1-1	REDUCED SPEED AHEAD						
ONE "U" POST PER SIGN	ONE "U" POST PER SIGN						
				NOTES:  1. NCDOT TO PROVIDE SIGNATURE SIGNATUR	NATE INSTALLATION OR TO PROVIDE 3 OT BEFORE	421 FAYETTEVILLE ST, SUITE 60 RALEIGH, N.C. 27601	
				INSTALLATION TO BEG	LIN	CONST. REV.	
						TYPE "E"	SIGNS

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Kimley » Horn

421 FAYETTEVILLE ST, SUITE 600 RALEIGH, N.C. 27601

RIGHT-OF-WAY REV.

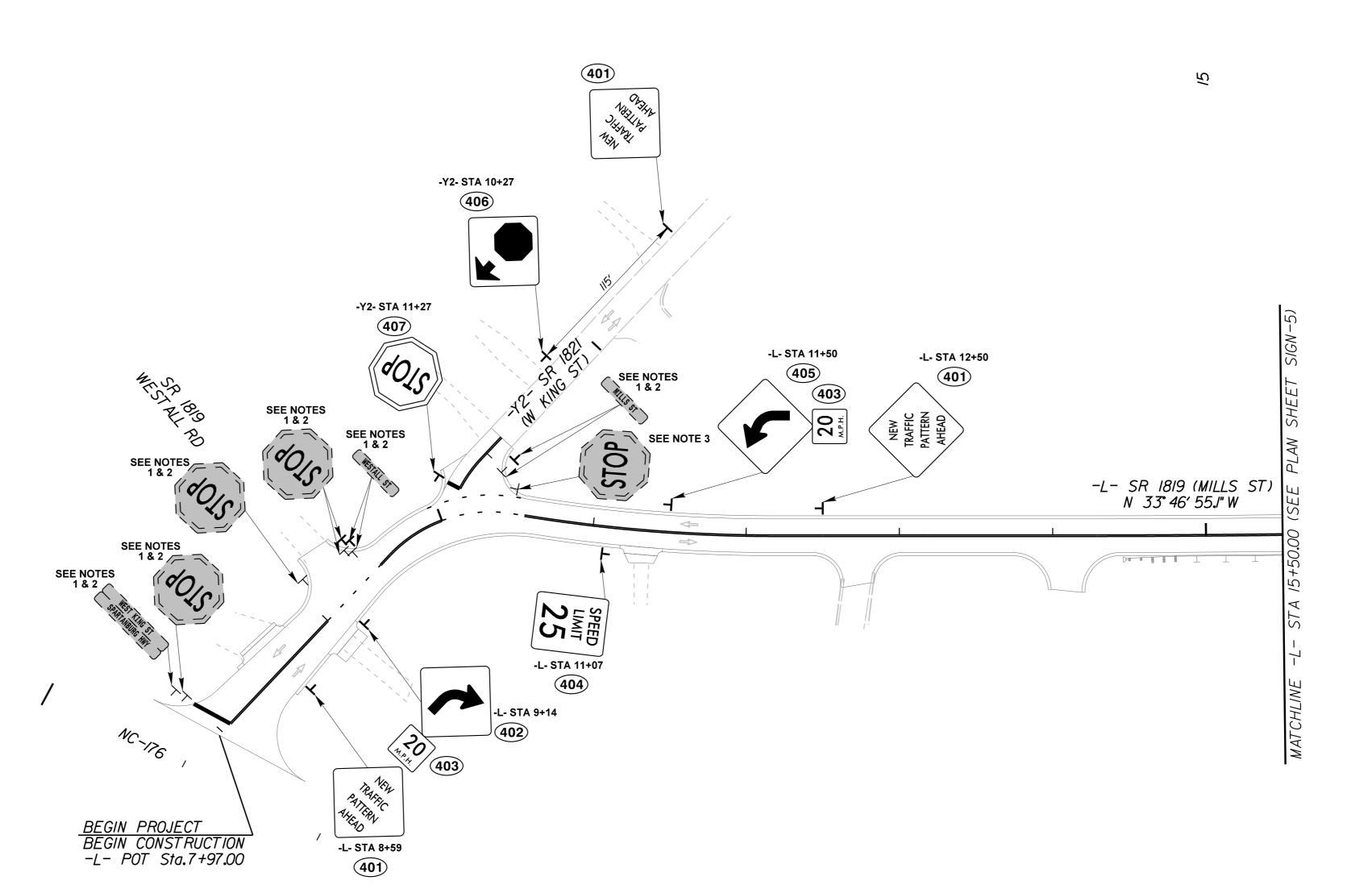
SEAL

Docusigne Hall

GODSCA01F9294B6

4/25/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DENOTES EXISTING SIGN

- DENOTES NEW "U" CHANNEL POST/PROPOSED SIGN LOCATION

→ DENOTES EXISTING "U" CHANNEL POST/EXISTING SIGN LOCATION

PAY ITEM NOTES:

I.REMOVE AND DISPOSE OF EXISTING "U" CHANNEL POST 2.ERECT EXISTING SIGN ON NEW "U" CHANNEL POST 3.REMOVE AND DISPOSE OF EXISTING SIGNS AND "U" CHANNEL POST

